This suspended equipment is generally attached to the wearer's head gear by an articulating link so the wearer can adjust the position of the suspended equipment.

In many situations, however, the protection means or other equipment suspended from the head gear cannot readily be adjusted or otherwise moved into more desirable positions because the wearer's hands are otherwise engaged. Particularly, persons in the aforementioned professions and activities are frequently involved in work requiring use of head gear with equipment suspended therefrom, while at the same time both hands are fully occupied in complex, difficult, or dangerous procedures and cannot be freed to adjust or reposition the suspended equipment. Thus, there is a need in these professions for an articulating link capable of quick, facile, and accurate adjustment, so that continued readjustment by the wearer is not necessary. The present invention satisfies this need, as well as others, by providing both the head gear and the equipment to be suspended with suitable attachment means to couple with the ratchet links. For example, referring to FIG. **9**, a socket mount **44** could be attached to a head worn visor and, referring to FIG. **10**, a tongue mount **46** could be attached to a face shield or eyeglasses. The two objects can be coupled in an articulating manner using a plurality of links between socket mount **44** and tongue mount **46**, with the links chosen according to the distance from the head visor and degree of articulation desired for the face shield.

Another application of ratchet links in accordance with the present invention is for use with toy building blocks and building sets, such as LEGO® and the like. Toy building blocks and building sets are frequently used to create small (toy) buildings, ships, automobiles, and other structures. Ratchet links in accordance with the present invention could be attached to the building blocks at the projections, indentations, or other surface features on the building blocks to allow moving pans in the structures assembled from the building blocks, such as doors, windows, and the like, to be articulated in a plurality of positions.

Accordingly, it will be seen that this invention provides a ratchet link which provides for quick, easy, and accurate articulating attachment of objects. Although the description above contains many specificities, these should not be construed as limiting the scope of the invention but as merely providing illustrations of some of the presently preferred embodiments of this invention. Thus the scope of this invention should be determined by the appended claims and their legal equivalents.

What is claimed is:

1. A ratchet link, comprising:

(a) a socket, said socket including a pair of opposing, spaced-apart, arcuate prongs, said prongs having ends, said socket including an inner surface between said ends of said prongs;

(b) a generally cylindrical tongue, said tongue joined to and extending away from said socket, said tongue including an outer surface; and

(c) link coupling means for pivotally and releasably coupling said tongue to a socket on another said ratchet link and articulating said coupled ratchet links in a plurality of discrete positions, said link coupling means comprising;

(i) a first plurality of teeth extending outward from said inner surface of said socket and separated by a first plurality of notches; and

(ii) a second plurality of teeth extending outward from said outer surface of said tongue and separated by a second plurality of notches.

2. A ratchet link as recited in claim **1**, wherein said link coupling means further comprises:

(a) a slot, said slot positioned circumferentially along said inner surface of said socket between said ends of said prongs; and

(b) an annular ring, said ring positioned circumferentially along said outer surface of said tongue.

3. A ratchet link as recited in claim **2**, wherein said tongue and said socket have parallel faces, and wherein said first and second plurality of teeth extend between said parallel faces.

4. A ratchet link as recited in claim **3**, wherein said tongue includes a coaxial opening extending between said faces.

5. A ratchet link, comprising:

(a) a socket, said socket including a pair of opposing, spaced-apart, resilient arcuate prongs, said prongs having ends, said socket having an inner surface between said ends of said prongs;

(b) a slot, said slot positioned circumferentially along said inner surface of said socket between said ends of said prongs;

(c) a first plurality of teeth extending outward from said inner surface of said socket and separated by a first plurality of notches;

(d) a generally cylindrical tongue, said tongue joined to and extending away from said socket, said tongue having an outer surface;

(e) an annular ring, said ring positioned circumferentially along said outer surface of said tongue; and

(f) a second plurality of teeth extending outward from said outer surface of said tongue and separated by a second plurality of notches.

6. A ratchet link as recited in claim **5**, wherein said tongue is configured and structured to pivotally and releasably engage a socket on another said ratchet link, wherein said slot of another said ratchet link receives said ring of said tongue and wherein said teeth and notches in said tongue intermesh with said teeth and notches in said socket of said other ratchet link.

7. A ratchet link as recited in claim **5**, wherein said tongue and said socket have parallel faces, and wherein said first and second plurality of teeth extend between said parallel faces.

8. A ratchet link as recited in claim **5**, wherein said tongue includes first and second faces, and wherein said tongue includes a coaxial opening extending between said faces.

9. An articulating coupling system, comprising:

(a) a socket, said socket including a pair of opposing, spaced-apart, resilient arcuate prongs, said prongs having ends, said socket having an inner surface between said ends of said prongs, said socket including a slot positioned circumferentially along said inner surface of said socket between said ends of said prongs, said socket including a plurality of teeth extending outward from said inner surface of said socket and separated by a first plurality of notches;

(b) a generally cylindrical tongue, said tongue having an outer surface, said tongue including an annular ring positioned circumferentially along said outer surface of said tongue, said tongue including a plurality of teeth extending outward from said outer surface of said tongue and separated by a second plurality of notches;

(c) means for coupling said socket to an object; and

(d) means for coupling said tongue to an object.

10. An articulating coupling system as recited in claim **9**, further comprising a ratchet link, said ratchet link comprising: